

CLAIMS

What is claimed is:

1. An interface, comprising:
an interface area located responsive to a natural motion by a user and, comprising:
a graphic defining the interface area; and
controls located in the interface area and accessible via the natural motion.
2. An interface as recited in claim 1, wherein the natural motion is a curve associated with movement of a hand of the user when an elbow of the user is pivoted.
3. An interface as recited in claim 2, wherein a location responsive to the natural motion of the user hand is defined by the natural motion passing through a substantial center area of a display area.
4. An interface as recited in claim 1, wherein the natural motion is a curve associated with movement of a hand of the user when an elbow of the user is pivoted and one of a wrist of the user is rotated and fingers of the user are moved.
5. An interface as recited in claim 1, wherein an interface location responsive to the natural motion of the user is a lower corner of a display area.
6. An interface as recited in claim 1, wherein the graphic is a shape corresponding to an arc shaped curve and the controls are positioned in accordance with the curve.
7. An interface as recited in claim 6, wherein a radius of the arc shaped curve is at least a radius of a menu of one of the controls.
8. An interface as recited in claim 6, wherein a control closest to a display area is positioned along the curve at least a radius of a menu of the control.
9. An interface as recited in claim 1, wherein a menu associated with one of the controls has a layout responsive to the curve.

10. An interface as recited in claim 1, wherein a marking menu associated with one of the controls has a layout where a downward stroke brings up additional tool palettes and/or dialogs.

11. An interface as recited in claim 1, wherein the interface is located in a lower left corner of a display area and the controls of the interface are arranged as one of a convex arc across the corner, a concave arc across the corner, a line across the corner, an array in the corner, a convex corner across the corner, a convex arc with a linear portion across the corner, a sectioned pie in the corner, a sectioned pie in the corner and extending across the display area, and a rotatable circle intersecting both sides of the corner.

12. A graphical user interface, comprising:
an interface having an interface arc shape, located in corner of a display area, having graphics for controls arranged along the interface arc and having control hit zones each with a zone shape responsive to an approach arc defined by a dominant motion arc of a motion of a user with the graphics of the controls being located responsive to one-shot function or menu pop-up function with a pop-up menu radius.

13. An interface as recited in claim 12, wherein the zone shape comprises one of a wedge, a curved sided triangle and a curved sided trapezoid.

14. An interface as recited in claim 12, wherein the zones have non-coincident, dominant arc approach paths.

15. An graphical user interface for a digitizer based drawing application, comprising:
a semicircular graphic located in a corner of a display area of the drawing based application; and

controls located essentially in an arc in the graphic, said controls comprising:

a tool control located adjacent the minimize control and providing a menu for selecting a drawing tool of the application; and

a color control located adjacent the undo control and providing a menu for selecting paint color applied by a drawing tool of the application.

16. An interface as recited in claim 15, wherein said controls further comprise:
a minimize control located on a side edge of the graphic and providing a minimize function for the interface;
a page/file control located adjacent a bottom edge of the graphic and proving a page change function for drawing pages of the application;
an edit control located adjacent to the page control and providing an undo function for the application; and
a tool type control located between the tool control and the color control and providing a menu for selection a tool type of the application

17. An interface as recited in claim 16, wherein the graphic comprises a semicircular band.

18. An interface as recited in claim 16, wherein pop-up menus pop-up in association with the selected control and at a distance from side and bottom edges of the graphic to allow all menu commands to be displayed.

19. An graphical user interface for a tablet personal computer based drawing application using a stylus, comprising:

a semicircular graphic located in a corner of a display area of the drawing based application responsive to a natural motion by a user wherein the natural motion is a curve associated with movement of a hand of the user when an elbow of the user is pivoted; and
controls located essentially in an arc in the graphic and activated by the stylus, said controls comprising:

a minimize control located on a side edge of the graphic and providing a minimize function for the interface;

a page control located adjacent a bottom edge of the graphic and proving a page change function for drawing pages of the application;

an undo control located adjacent to the page control and providing an undo function for the application;

a tool control located adjacent the minimize control and providing a menu for selecting a tool of the application;

a color control located adjacent the undo control and providing a menu for

selecting paint color applied by a tool of the application; and

a tool type control located between the tool control and the color control and providing a menu for selection a tool type of the application,

wherein a radius of the arc shaped curve is at least a radius of a menu of one of the controls,

wherein a control closest to a display area is positioned along the curve at least a radius of a menu of the control, and

wherein a marking menu associated with one of the controls has a layout where a downward stroke brings up additional tool palettes and/or dialogs.

20. A method, comprising:

mapping controls of an graphical user interface in an arc shape at a location responsive to an approach arc and with a radius responsive to an underlying menu activatable via one of the controls; and

allowing a user to activate the controls.

21. A method as recited in claim 20, wherein the location comprises a display area corner.

22. A method as recited in claim 20, wherein the corner is lower right corner for a left-handed person and a lower left corner for a right-handed person

23. A method as recited in claim 20, wherein the mapping maps controls on the arc responsive to a function of the controls.

24. A method as recited in claim 20, further comprising minimizing the interface responsive to activation of a minimize control.

25. A method as recited in claim 20, wherein the allowing comprises:

displaying a menu upon a touch input and allowing a user to select an item of the menu;

displaying a menu and performing an interaction upon a dwell input; and

performing a function upon a stroke input.

26. A method as recited in claim 25, wherein if a user is inking from a drawing canvas and the inking crosses into the menu, inking still occurs on the canvas.

27 A computer readable storage for controlling a computer by mapping controls of a graphical user interface in an arc shape at a location responsive to an approach arc and with a radius responsive to an underlying menu activatable via one of the controls and allowing a user to activate the controls.

28 An apparatus, comprising:
a display; and
a processor positioning a graphical user interface of multiple controls in a lower right corner of the display, the interface having an interface arc shape and positioning the controls on the interface arc at positions responsive to a natural motion arc of a user when moving a hand from a center of the display toward the corner.

29 An apparatus as recited in claim 28, wherein the processor positions the controls responsive to a function of the controls.

30 An apparatus as recited in claim 28, further comprising a stylus-based input system coupled to the processor and the display, and activating the controls responsive to a tap of a stylus on one of the controls, a dwell of the stylus over one of the control and a stroke of the stylus on one of the controls.